LONGON SCHLOLG TROPISAL MEDICINE

NOT TO BE TAKEN AWAY.

Rec! 15 JUL 07

# THE MEDICAL REPORT

FOR THE

# STATE OF SELANGOR,

1906.



# RETURN OF THE STATISTICS OF POPULATION OF SELANGOR FOR THE YEAR 1906.

State of Selangor.	Europeans.	Eurasians.	Chinese.	Madays.	Tamils.	Others.	Total.
Number of inhabitants on the 31st December, 1905	3,0	)23	160,961	56,754	29,125	2,639	252,502
,, Births during the year 1906		61	703	1,457	222	377	2,820
,, Deaths ,, 1906		31	4,710	1,286	1,941	335	8,303
" Immigrants " 1906	1,4	<b>1</b> 30	37,390	12,390	26,809	1,378	79,397
., Emigrants ,, 1906		764	24,413	7,843	9,471	306	42,797
,, Inhabitants on the 31st December, 1906	3,7	719	169,931	61,472	44,744	3,753	283,619
Increase, or	(	396	8,970	4,718	15,619	1,114	31,117
Decrease	0.00						

# METEOROLOGICAL RETURN OF KUALA LUMPUR FOR THE YEAR 1906.

				Temper	rature.		!	Rainf	all.*	Winds.	
		Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.
January	• • •	151.0	52.1	90.2	71.5	18.7	81.1	3.41	77	Calm.	
February		152.4	52.4	90.9	71.5	19.4	80.1	6.99	80	Calm.	
March		150.8	52.9	90.9	71.8	19.1	80.8	6.30	79	Calm.	
April	• • •	147.0	52.2	91.0	72.1	18.9	80.8	9.83	78	Calm.	
May	•••	153.3	52.8	90.5	72.0	18.5	80.9	8.51	80	S. E.	d.
June	•••	146.7	53.0	89.8	71.4	18.4	80.8	5.66	78	Calm.	Not recorded.
July		152.5	52.3	91.0	72.0	19.0	81.3	1.14	77	Calın.	ot rec
August		149.6	52.7	89.8	71.4	18.4	80.0	7.05	81	S. W.	Ř
September	•••	149.7	52.8	90.6	72.4	18.2	81.1	5.25	77	s. w.	
October	•••	142.0	52.1	89.6	71.7	17.8	79.8	12.15	82	Calm.	·
November	•••	148.1	52.9	89.9	71.4	18.5	80.2	5.51	80	s. w.	
December	•••	139,4	52.2	88.4	71.6	16.8	78.9	14.94	83	s. w.	
Means		148.5	52.5	90.2	71.7	18.5	80.4	7.23	79	Calm.	

<sup>\*</sup> Total rainfall 86.74 inches.

# RETURN OF DISEASES AND DEATHS IN 1906 AT ALL HOSPITALS IN SELANGOR.

						ining spital id of 5.	Yearly	Total.	† Total Cases Treated.	Remaining n Hospital at end of 1906.
	Ι	)iseases.				*Remaining in Hospital at end of 1905.	Admis- sions.	Deaths.	† Tc Cas Trea	#Remaining in Hospital at end of 1906.
GE	NERA	L DIS	EAS	SES.						
Small-pox	•••		•••	•••	*,* *	• • •	. 6	1	. 6	1
Chicken-pox	•••			•••	* * *,	•••	7 .		. 7	
Measles	•••		•••	•••	n, 0 4a	•••	. 11		11	
Typhus	•••						1			
Dengue		•••	•••			4	211		, 215	1
Influenza		* * *,				•••	1		1	
Plague		• • • •				•••	4.	. 2	4	
$\mathbf{Mumps}$	•••		•••			•••	23		, 23	
Diphtheria	•••			•••						
Febricula	•••					<b>6 4 6</b> 7	. 12 ,	, ,1	12	
Enteric Fever	•	•••				.4	, 74	21.	78	4
Cholera	•••		•••			• • •	7 ,	. 4	7	
Dysentery		·	• • •			43	1,181	437	1,224	. 77
Yellow Fever	• • • •			•••						
Beri-beri	•••	•••	•••			323	1,578	365	1,896	222
Malarial Feve	er—					,	, ,			1
(a) Intern	nittent-	_					. ,			
Mal	ignant	Tertian		•••		6	, 248 ,	. 25	254	18
Quo	tidian	•••				7	, 535	117	, 542	78
Tert	ian	•••	•••	•••		9	. 309	18	318	25
Qua	rtan					8	84	6	92	5
Irre	gular		•••		6 d d		19	6	19	
Тур	e undia	ignosed	•••			44	1,634	57	1,678	61
(b) Remit	tent		•••				10.	,9	. 10	
(c) Pernie	ious R	• • • •					260	81	.260	8
$\mathbf{M}\mathrm{al}$	arial C	achexia	•••			4	220 .	. 29.	224	10
Phagedæna	•						1 ,			
(a) Slough				•••		•••	19	7.	. 19	5
(b) Hospit				•••	•••					
Erysipelas		•••		***		•••	12	2	12	
		Car	ried	forward	•••	${452}$	6,460	1,188	6,912	515

<sup>\*</sup> i.e., the year previous to that for which the Return is made.

<sup>+ &</sup>quot;Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

<sup>‡</sup> The figures in this column to be carried on to the next year's Return.

			la l	1 77 1	<i>m</i>	<u> </u>	l on e d
1	Diseases.		*Remaining in Hospital at end of 1905.	Yearly	y Total.	† Total Cases Treated.	‡ Remaining in Hospital at end of 1906.
			*Ren in H at c	Admis- sions.	Deaths.	+off	† Regin H
	$Brought\ fe$	orward	. 452	6,460	1,188	6,912	515
GENERAL I	DISEASES	(cont.)	,				
Pyæmia		•••		1	1	1	
Septicæmia		•••		3	2	3	
Tetanus	•••		•••	3	2	3	
Tubercle ,	•••	•••	4	16	6	20	
Leprosy—	***	•••	153	100	59	253	157
(a) Tubercular	•••	•••	•••	2		2	
(b) Anæsthetic			•••	8	•••	8	
Yaws	•••	•••		,	1.		
Syphilis—							
(a) Primary		•••	3	211	4	214	21
(b) Secondary		•••	12	162	3	174	9
(c) Inherited Ter	rtiary	•••	11	131	14	142	15
Gonorrhea		•••	9	403	2	412	29
Hydrophobia							
Scurvy		•••			6		
Alcoholism	•••	•••	2	37		39	2
Delirium Tremens	•••	•••					
Rheumatic Fever	•••	•••		2		2	
Rheumatism	•••	•••	37	724	3	761	39
Gout		•••			300		
New Growth, non-n	nalignant	•••	6	26	1.	32	1
Do. malig	nant	•••		21	6	21	1
Rickets	•••	•••					
Anæmia	•••	•••	21	532	84	553	34
Myxœdema	•••	•••				1	
Diabetes mellitus	•••	•••		1		1	
Do. insipidus		•••	1			1	
Debility	•••	•••	15	283	30	298	22
Other Diseases	• • • • • •	•••		23	6	23	
	Carried for	rward	726	9,149	1,411	9,875	845

<sup>\*</sup> i.e., the year previous to that for which the Return is made.
† "Total eases treated" will, of course, include those remaining in Hospital at the end of the previous year.
‡ The figures in this column to be carried on to the next year's Return.

	D.*				spital of of	Yearly	Total.	otal ses ted.	vining spital id of 06.
	Diseases.				*Remaining in Hospital at end of 1905.	Admissions.	Deaths.	† Total Cases Treated.	#Remaining in Hospital at end of 1906.
LOCAL Nerve		EASES	forward S.	•••	726	9,149	1,411	9,875	845
Sub-Section 1—									
Neuritis	•••	•••	•••	•••	•••	12	•••	12	
Meningitis	•••	•••	•••	•••					
Myelitis	•••	•••	•••	•••	•••	15	3	15	4
Hydrocephalus	•••	•••	•••	•••	•				
Encephalitis	••• '	•••	•••	•••	,				
Abscess of Brain		•••	•••	•••	,			1 * 1	
Congestion of Br	rain	•••	•••	•••					,
Sub-Section 2—					• • •				
Apoplexy	•••	•••	•••	•••	3	5	•••	8	
Paralysis	•••	• • •	•••	•••	28	59	17	87	32
Bed-sore	•••	•••	•••	•••		,			
Chorea	•••	•••	***	•••					
Epilepsy	•••	•••	•••	•••	•••	9	3	. 9	1
Neuralgia	•••	•••	•••	···		. 38		38	
Hysteria	•••		•••	•••	•••	7		7	1
Sub-Section 3—									
Idiocy		•••		•••		1		1	
Mania	•••	•••	•••	•••	20	79	11	99	36
Melancholia	•••		•••	•••	22	72	18	94	26
Dementia	•••	•••	•••		7	31	10	. 38	11
Delusional Insar	nity	•••	•••		2	4	1	6	2
Other Diseases of t		em	•••	•••	24	148	20	172	23
	Eye.								
Conjunctiva					4				
Conjunctivitis	•••	•••	•••	• • •	4.	77 .	1.	81	2
Cornea									
Keratitis	•••	•••	•••	•••		3		3	
Ulceration	• • •	•••	•••	•••	7	73		80	6
Opacity		•••	•••	•••	•••	4	1	4	1
	Ca	rried f	corward	•••	843	9,786	1,496	10,629	990

<sup>\*</sup> i.e., the year previous to that for which the Return is made.

† "Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

r	,				vining spital d of 55.	Yearly	Total.	† Total Cases Treated.	vining spital od of 06.
1.	iseases.	e se en a			*Remaining in Hospital at end of 1905.	Admis- sions.	Deaths.	+ Tc	#Remaining in Hospital at end of 1906.
	Bro	ughtf	forward	•••	843	9,786	1,496	10,629	990
LOCAL DI	SEASE	S(c	ont.)						
Eyr Schlerotic—	E(con	t.)							
Staphyloma						 1	. , .	1	
Iris—	•••	•••	•••	•••	•••.	* ,	. •••	_	
Tuitia					 3	15	1	18	1
Glaucoma		•••	•••	•••	3	1		2	
TT		•••	•••	•••	, , <b>, *</b>	., 1.	. •••.		
Lens—	•••	•••	•••	•••	,				
					 5	15		20	9
Cataract Eyelids—	•••	•••		•••		10	9		
Entropion						1		1	
Other Eye Diseases	•••	•••			 43	74	· ···. 5	117	52
Other Lyc Discuses		•••	•••	•••	40	/4	, ,	11.7	92
T	EAR.						. , .	14	
Inflammation	•••	•••	•••	•••	••• ·	14	1	14	
Other Ear Diseases		•••	•••		•••	19	•••	19	-
	Nose.				,		, .		
Inflammation	•••	••• ,	•••	•••	•••	3	•••	3	
Other Nose Diseases		•••	•••	•••	•••	2	•••	2	
CIRCULA	TORY S	YSTEM	Γ.		· ·		,		
Membranes—						• 4			
Pericarditis	•••	•••	•••	•••	•••	1 .	•••• • • • •	1	
Endocarditis	•••	•••	•••	•••					
Valvular Diseases	S	•••	•••	•••		59	22	60	4
Muscular Substance	)—								
Hypertrophy	•••	•••	•••	•••					
Dilatation	•••	•••	•••	•••		• • •			
Other Diseases of the	he Syste	em	•••	•••	1	12	1	13	2.
Respira Larynx—	TORY S	System	1.						
Laryngitis				•••	1	4	· · · · · · · · · · · · · · · · · · ·	5	
	0	. 7	forward		898	10,007	1,529	10,905	1,058

<sup>\*</sup> i.e., the year previous to that for which the Return is made.

† "Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

	Diseases				spital of of 05.	Yearly	Total.	† Total Cases Treated.	aining spital nd of 06.
,	Disease	s.			*Remaining in Hospital at end of 1905.	Admissions.	Deaths.	Can Can Tree	‡ Remaining in Hospital at end of 1906.
	Bre	ought ,	forward	•••	898	10,007	1,529	10,905	1,058
LOCAL I	DISEA	SES-	-(cont.)						
RESPIRATO	RY SYST	ем(	(cont.)						
Bronchi—									,
Bronchitis	•••	•••	•••	•••	8	319	. 8	327	16
Astlima	•••	•••	•••	•••	8	46	2	54	2
Lung—							. ,,,,		
Congestion	•••	•••	•••	•••					
Hæmoptysis		•••	•••		•••	1	•••	1	
Pneumonia	•••	•••	•••	•••	5	180	81	185	3
Gangrene	•••	•••	•••	•••	•••	8	7	8	
Phthisis	•••	•••	•••	•••	16	350	164	366	20
Emphysema	•••	•••	•••	•••	•••	2		2	
Pleura—	•			•	•				
Pleurisy	•••	•••	•••	•••	•••	53 .	12	53	6
Empyema		•••	•••	•••	•••	5	4	5	
Other Diseases of			***	•••	•••	99	2	. 99	2
Mouth—	STIVE SY	STEM.							
Stomatitis	•••		•••			16		16	1
Dental Periostium	.— 				,	,	,		
Gum-boil	•••	•••		•••	•••	8	•••	. 8	
Fauces	. <b>.</b>			•					
Tonsillitis	•••	•••		•••	•••	15	•••	15	
Stomach—									
Gastritis	•••	•••	•••	•••	2	19	2	21	
Dyspepsia	•••	•••	•••	•••	•••	146	2	146	2
Intestines—									
Enteritis	•••	•••	•••	•••	•••	3	2	3	
Sprue	• • •	•••		•••	1	19	6	20	
Hernia	•••	•••		•••	•••	19	2	19	1
Constipation	•••	•••	•••		4	94	1	98	1
Diarrhœa	•••		•••	•••	27	883	344	910	35
	Ca	rried	forward		969	12,292	2,168	13,261	1,146

<sup>\*</sup> i.e., the year previous to that for which the Return is made.

† "Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

<sup>‡</sup> The figures in this column to be carried on to the next year's Return.

	)iseases.				* Remaining in Hospital at end of 1905.	Yearly	Total.	† Total Cases Treated.	Remaining 1 Hospital at end of 1906.
	nseases.	<del>-</del>			* Remaining in Hospital at end of 1905.	Admissions.	Deaths.	Ca Ca Tree	# Remaining in Hospital at end of 1906.
	Bro	ought $j$	forward		969	12,292	2,168	13,261	1,146
LOCAL DI	SEASI	ES(	(cont.)						
DIGESTIVE	System	м—(c	ont.)						
Rectum and Anus-	-								·
Hemorrhoids			•••	•••	2	36	1	38	
Liver									
Hepatitis		•••				12	•••	12	1
Abscess Liver	•••	•••	•••	•••	•••	11	4	11	1
Cirrhosis		•••			6	113	48	119	9
Congestion Liver	•••		•••			6	1	6	1
Jaundice	•••		•••			7 17	2	17	2
Peritoneum—									
Peritonitis	•••		•••	•••	•••	10	8	10	
Ascites	•••			• • • •	1	. 13	8.	. 14	2
Other Diseases of the	ne Syste	em	•••	•::.	4	153	16	157	8
Тлумрна	ATIC SY	STEM							
Spleen—									
Splenitis	•••	•••	•••	•••	3	77	1	80	5
Bubo	•••	•••	•••	·	5	92	•••	97	2
Lymphangitis	•••	•••	•••	•••		3	•••	3	
Elephantiasis	•••	•••	•••			5		5	
Other Diseases of the	ne Syste	em	•••		1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1	23	2
	RY SYS	STEM.							
Kidney—						10	7		3
Acute Nephritis	•••	•••	•••		1	16		17	
Bright's Disease	•••	•••	•••	• • •	9	125	37	134	10
Hæmaturia	•••	•••	•••		1	3	•••	4	
Chyluria	•••	•••							
Bladder—									
Cystitis	•••	• • •	•••	• • •	•••	7	1	7	
Calculus	/		•••	•••	1	5	•••	6	1
Other Diseases of the			•••		1	9		10	1.700
	Car	rried j	forward		1,004	13,027	2,303	14,031	1,193

<sup>\*</sup> i.e., the year previous to that for which the Return is made.

† "Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡ The figures in this column to be carried on to the next year's Return.

Whomas and a state				-		ining pital d of 5.	Yearly	Total,	es ted.	ining spital d of 06.
	. D	iseas	es,			*Remaining in Hospital at end of 1905.	Admis- sions.	Deaths.	†Total Cases Treated.	# Remaining in Hospital at end of 1906.
		E	Brought f	orward	•••	1,004	13,027	2,303	14,031	1,193
LOCAL	DI	SEA	SES—(	cont.)						
Urethra—	NERAT	TIVE	System	•						
C1 · 1	••	•••	•••	•••		1	11	•••	12	
Prepuce— Phimosis .	••	•••	•••	•••		1	. 55	•••	56	4
Paraphimosi	is	•••	•••		•••	2	20		22	
Penis— Soft Chancre	e	•••	•••	•••		9	316	2	325	11
Scrotum— Sloughing Sc	crotur	n	•••	•••	•••	•••	4		4	
Tunica Vagina	lis—						•			
Hydrocele .	••	•••	•••	•••	•••		14	1	14	
Testicle						•			* .	
	• •	•••	•••	•••	<i>:</i>	····	17	•••	17	
Epididymitis		• • •	•••	•••	•••	•••	19	•••	19	1
Other Diseases	(mal	e)	•••	•••	• • •	•••	23	•••	23	1
Uterns—		^					• 1			
		•••	• • •	•••	•••	::-	2	•••	2	
Uterine Disp		ents	•••	•••						
Amenorrhæa		•••	•••	•••	•••					
Dysmenorrh		•••	•••	•••						
Menorrhagia	L	•••	•••	•••		•••	* 1		1	
Leucorrhæa		•••	•••	•••	• • •		, .			
Other Diseases	(fem	ale)	• • •	• • •		5	- 115	4	120	14
· Organise O	ANS O	F Lo	COMOTIC	N.						
Ostitis .	••	•••	•••	•••		2	1		3	1
Periostitis .	•••	•••	•••	•••			6	1	6	
Caries .		•••	•••	•••		4	20	3	24	1
Necrosis .	••	•••	•••	•••		5	28	3	33	2
-Joints Synovitis .	••		***	•••			43	1 .	44	. 7
4 1 1	• •			•••		:	1 .		1	
			 arried fo		•••	1,034	$\frac{1}{13,723}$ .	9 318		1 00"
Market .						2,001	19,720	2,318	14,757	1,235

<sup>\*</sup> i.c., the year previous to that for which the Return is made.

† "Total eases treated" will, of course, include those remaining in Hospital at the end of the previous year.

† The formula the leaves of the previous Pottum

The figures in this column to be carried on to the next year's Return.

					ining spital d of 5.	Yearly	Total.	otal ses ted.	tining spital d'of 16.
	)iseases.				*Remaining in Hospital at end of 1905.	Admis- sions.	Deaths.	† Total Cases Treated.	#Remaining in Hospital at end of 1906.
	Brought forward 1,034 13,723 2,318					2,318	14,757	1,235	
LOCAL DI	SEASE	S(	cont.)						
ORGANS OF L	осомоті	on—	(cont.)						
Spine—						,	,		
Caries Spine	• • •		•••	•••		4	•••	4	
Curvature Spine				• • •					
Muscles—	•								
Myalgia		• • •	•••			12	•••	12	
Other Diseases			•••		2	80	3	82	16
Connec	TIVE TI	SSUE.				, .			
Cellulitis	.•••	•••		•••	7	25	3	32	1
Abscess	• • •	•••		• • •	11	321	11	332	18
Gangrene	• • •			• • •	•••	28	12	28	5.
Other Diseases	•••	• • •							
	SKIN.								
Eczema			• • •	•••	3	97		100	2.
Psoriasis		•••	·			14	•••	14	2
Herpes :	•••		•••	•••	•••	. 10	•••	10	
Do. Zoster		• • •		•••		5		5	
Ulcer	• • •				112	.1,795	13	1,907	142
Boil	•••		•••			27	•••	27	
Carbuncle	•••		•••		1	20	1	21	3.
Onychia	• • •	•••	•••			2		2	
Whitlow	•••			•••		9	•••	9	
Other Diseases	•••	• • •	•••	• • •	6	130	5	136	8
GENERA	AL INJ	URI	ES.						
Burns and Scalds	•••	•••	•••			15	6	15	1
Sunstroke		•••	•••						
Multiple Injury	•••	•••	***	•••	2	16		18	1
Starvation	/	•••	•••	•••	•••	1	1	1	
Shock		•••	•••	•••	•••	3	2	3	
	Car	ried	forward	•••	1,178	16,337	2,375	17,515	1,434

<sup>\*</sup>i.e., the year previous to that for which the Return is made.

†"Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

‡The figures in this column to be carried on to the next year's Return.

T);	seases.				*Remaining in Hospital at end of 1905.	Yearly	Total,	†Total Cases Treated.	‡Remaining in Hospital at end of 1906.
Di	senses.			·	* Remaining in Hospital at end of 1905.	Admissions.	Deaths.	Can Can Tree	# Rem in H at e
	Bre	ought f	orward		1,178	16,337	2,375	17,515	1,434
LOCAL	INJU	IRIES	S.						
Burns and Scalds	• • •	•••	•••	•••		52	2	52	1
Wounds			•••	•••	23	475	7	498	26
Sprains	•••		•••		1	44		45	3
Dislocations				•••	1	9		10	
Fractures, simple	•••				5	59	6	64	4
Do. compound	1	•••	•••		3	39	8	42	5
Other Injuries	•••	•••	•••		2	157	7	159	2
Surgical Operations		•••	•••		26	679	36	705	42
Malformations	•••		•••		13	4	1	17	
РО	ISON	s.							
Mercury		•••				1		1	1
Alcohol			•••			3		3	
·Opium	•••				1	5	1	6	
Other Poisons	•••		•••			8		8	
Poisoned Wounds	•••		•••		4	37	2	41	2
PAF	RASIT	ES.						i	
Distomum Sinense	,		•••						
Tœnia Solium		•••				3		3	
Ascaris Lumbricoide	es		•••			42		42	2
Anchylostomum Du	odena:	le				47	9	47	6
Oxyuris Vermiculari			•••		•••	6		6	
Filaria Medinensis	•••	• • •	***			6		6	
Acarus Scabiei	•••		•••		9	179	3	188	10
Tinea Circinata	•••		•••			12		12	
Other Parasites	•••	•••	•••			12		12	
Malingering	•••		•••		•••	63		63	
Under observation	•••				6	138	10	144	10
			Total		$-{1,272}$	18,417	2,467	19,689	1,548

<sup>\*</sup>i.e., the year previous to that for which the Return is made.

†"Total cases treated" will, of course, include those remaining in Hospital at the end of the previous year.

The figures in this column to be carried on to the next year's Return.

# FEDERATED MALAY STATES.

# STATE OF SELANGOR.

# ANNUAL REPORT ON THE MEDICAL DEPARTMENT FOR THE YEAR 1906.

#### POPULATION.

The estimated population of the State of Selangor:

On 31st December, 1905, was		252,502
,, ,, 1906 ,,		283,619
The number of births registered during the year was		2,820
,, deaths registered ,, .,	•••	8,303
The approximate number of immigrants was		79,397
,, ,, emigrants ,,		42,797
The birth-rate per mille per annum was		9.942
The death-rate		29.275

These statistics are, as regards the number of immigrants and emigrants, the birth- and deathrate, and the total population, by no means correct, as only those persons entering or leaving the State by sea are registered, no note being taken of the large number of persons travelling to and fro by the railway to Penang and Malacca.

#### METEOROLOGICAL CONDITION OF SEASONS.

The rainfall registered at the General Hospital, Kuala Lumpur, was 86.74 inches as against 98.96 inches in the previous year.

The mean temperature taken at Kuala Lumpur was 80°.4 F. as against 80°.3 F. in 1905. The mean maximum temperature was 90°.2 F. and the mean minimum 71°.7 F.

### NUMBER OF PATIENTS TREATED IN ALL HOSPITALS.

The number of patients treated, with number of deaths and case mortality, is shown by the following table:

Year.		No. treated.	N	To. of deaths.		Percentage.		
1902			 18,173		2,087	• • •	11.48	
1903	=		 14,425		1,872		12.97	
1904			 14,319	• • •	1,534		10.71	
1905.			 16,382		1,856		11.73	
1906			 18,963		2,428		12.80	

The large increase in the number of patients treated is principally due to a very large increase in the number of coolies employed on rubber estates.

The increase has been most marked at the General Hospital, Kuala Lumpur. The number of patients under treatment in which on the 31st December, 1906, was 161 as against 88 on the 31st December, 1905; and at the District Hospital, Klang, where 199 patients were treated on the 31st December, 1906, as against 110 the on 31st December, 1905.

The death-rate for all hospitals was 12.80 per cent., which is about 1 per cent. higher than during the previous year. This I do not consider unsatisfactory considering the large number of weakly immigrants that have been admitted to the hospitals.

## PREVAILING DISEASES.

The following diseases were responsible for the largest proportion of sickness and mortality:

. Dise	ise.		,	No. treated. No. of deaths.				Percentage of deaths.		
				1905.	1906.	1905.	1906.	1905.	1906.	
Beri-beri				2,215	1,896	330	365	14.89	19.25	
Malarial fever				2,109	3,397	173	348	8.20	10.24	
Pulmonary disease	• • •	• • •		1,078	948	284	262	26.34	27.63	
Dysentery	. 1 4			958	1,224	303	437	31.62	35.70	
Venereal disease				660	942	10	· 23	1.51	2.44	
Diarrhœa	•••	• • •		592	910	168	344	28.37	37.80	

#### BERI-BERI.

The number of beri-beri cases treated in the various hospitals with number of deaths and death-rate were as follows:

Year.				Cases treated	1.	Deaths.		Mortality.
1902			 	2,673		325		12.15
1903	***	***	 	1,912		351	•••	18.35
, 1904	• • •		 	2,083		326		15.65
1905			 	2,215		330		14.89
1906			 	1,896		365		19.25

The number of cases of beri-beri treated was less than for some six years. No marked outbreak of beri-beri has been observed in any part of the State.

The number of deaths caused by this disease has slightly increased and the case mortality has risen from 14.89 per cent. in 1905 to 19.25 per cent. in 1906.

The disease appears to have been of a more fatal type in Ulu Selangor than in other parts of the State. The number of cases admitted to the Kuala Kubu Hospital was 135 with 51 deaths, a mortality of 37.7 per cent., as against 108 cases with five deaths at the District Hospital, Kajang.

#### MALARIAL FEVERS.

There has been a large increase in the number of cases of malaria admitted to hospital as is shown by the following figures:

Year.				Cases treated	1.	Deaths.	Mortality.
1904	. , .	 		2,008		114	 5.67
1905		 		2,109		173	 8.20
1906	. , ,	 	•••	3,397		348	 10.24

There has been a slight increase in malaria in most districts and a very marked increase in the Klang district, several severe outbreaks having occurred on various estates involving practically the entire labour force.

This subject is dealt with in detail in Dr. Watson's report on the Klang district.

#### BOWEL COMPLAINTS.

The number of cases and deaths caused by dysentery and diarrhea was as follows:

Year.							Cases treated.					
1905							1,550		471			
1906							2,134		781			

The considerable increase in the number of admissions to hospital on account of this class of disease may be accounted for, as in the case of malaria, by the importation of large numbers of Tamil coolies for estate work. It is interesting to compare the figures for the years 1901 and 1902, when large numbers of coolies were imported by Government to work on the railway extension from Kajang to Seremban, with those for the year 1906, when a much larger number were imported for the rubber estates.

Year.		Cases.		Deaths.	
1901		3,826		1,143 )	Railway extension works carried
1902		2,488	•••	848 }	out by Government.
1903		1,712		588 )	No marked in average of immigration
1904	• • •	1,140		328 }	No marked increase of immigration for any special purpose.
1905		1,550		471 )	for any special pulpose.
1906	•••	2,134	•	871 {	Extensive opening of rubber estates by planters.

## PULMONARY DISEASE.

Nine hundred and forty-eight cases of disease of the respiratory system were treated with 262 deaths, as against 1,078 cases with 284 deaths in 1905.

#### VENEREAL DISEASE.

Statistics of cases of this type of disease during the last five years are as follows:

Year.						Cases.	Deaths.
1902	 <i>j</i>			 		844	 7
1903	 	***	***	 	• • •	847	 16
						751	
						660	
						942	

The increase in the number of cases of venereal disease is due to the admission of a large number of prostitutes of all nationalities to the General Hospital. Slight cases of disease are now taken into hospital in order to check the spread of disease.

#### ZYMOTIC DISEASE.

PLAGUE.—Two cases of plague were treated at Kuala Kubu, of which one proved fatal. One case of this disease was treated at the Infectious Disease Ward, Kuala Lumpur, and proved fatal. In none of these cases was the source of infection discovered.

CHOLERA.—Seven cases of cholera with four deaths were treated at the Infectious Disease Hospital at Port Swettenham. These cases occurred among Indian immigrants who had been brought from India on ships on which cases of cholera had occurred during the voyage from India and had been detained in quarantine on St. John's Island, Singapore.

SMALL-Pox.—Nine cases of small-pox with one death were treated at the Infectious Disease Ward, Kuala Lumpur. One case of small-pox was treated at the District Hospital, Klang.

Some ten cases of small-pox occurred among the Tamil coolies on various estates during the year. In each case infection was traced to the ship on which the coolies were brought over from India.

Arrangements have now been made by which all coolies not showing good vaccination marks are vaccinated before being distributed to the various estates.

#### VACCINATION.

The number of persons vaccinated during the last five years with percentage of success is shown as follows:

Year.			N	o. vaccinate	d	Successful.	Percentage of sueee		
1902	• • •		 	2,774		2,748		99.06	
1903		•••	 	3,236	• • • . ,	3,176		98.14	
1904			 	2,722		2,663	• • •	96.73	
1905			 	3,659	• • •	3,360		91. 8	
1906			 •••	6,726		4,380		65. 1	

It will be seen that the number of persons vaccinated has increased from 3,659 in 1905 to 6,726 in 1906. This may be accounted for by the appointment of a second vaccinator, who has been mainly employed in vaccinating Tamil coolies on arrival at Port Swettenham and on the estates.

As the gangs of coolies are after being vaccinated distributed to all parts of the State it has been impossible to examine a large number of these cases to see if they have been successful. This will account for the apparently low percentage of success, which was 65.1 as against 91.8 in 1905. If, however, only those cases subsequently examined are considered the percentage of success is 91.8.

Saigon buffalo lymph has been used throughout the year and has been very satisfactory. If used within a fortnight of its arrival this lymph is quite the best I have any experience of in the East.

#### OUT-PATIENTS.

The number of persons applying for out-patient relief was as follows:

Year.						C	out-patients.
1903	•••	•••	•••	 	 •••	 •••	36,174
1904				 	 •••	 •••	38,774
1905						•••	41,558
1906						•••	42,536

#### THE EUROPEAN HOSPITAL.

This hospital has been quite full on several occasions during the year. The number of patients treated was 126 with two deaths, as against 78 with one death during the previous year.

Several major operations were performed, including four cases of abscess of the liver, three appendectomy and one appendicitis, all of which were successful.

The nursing staff, which consists of one Matron and two Nurses, has proved insufficient for the needs of the hospital. On one occasion there were in the wards, two cases of typhoid fever, one of tetanus, a case of abscess of the liver and another of malignant malaria. The available nursing staff consisted of a Matron and one Nurse, who were quite anable to

carry out the work efficiently: a Dresser from the General Hospital was sent up to assist. Regular leave is essential for English Nurses working in the tropics; and under the present arrangements at the European Hospital it is quite impossible for the Nurses to take leave at any time.

#### THE PUDU GAOL.

The health of the prisoners was extremely good throughout the year. The number of prisoners treated in the infirmary during the last three years was as follows:

Year.							Priso	Deaths.		
1904		•••		•••			•••	354		11
1905	•••	• • •	•••	•••		• • •		300	•••	14
1906								267		8

Thirty-four cases of beri-beri were admitted to the infirmary during the year. Of these 18 were relapsed cases, nine had either symptoms or a previous history of beri-beri, three men had beri-beri when sentenced and only four cases originated in the gaol. There was one death from beri-beri. The prisoners were throughout the year dieted on Rangoon rice.

#### GENERAL HOSPITAL.

Dr. W. Fletcher, District Surgeon, reports as follows:

"The number of patients treated in the General Hospital during the year 1906, was 3,146. The numbers for the last three years are as follows:

					Total treated.							
Year.					Exc	luding oper	ations.	Including operations.				
1904	•••		•••			2,242	• • •		2,464			
1905		• • •			•••	2,799	• • •	• • •	3,120			
1906	•••	•••	•••	•••	•••	3,146		•••	3,551			

The number of Chinese and Malays admitted to the hospital during the year was practically the same as in 1905. The increase in patients was due to Tamils and Bengalis. Many of the Chinese are brought into hospital in a moribund condition by their friends in order that they may not die at home and bring bad luck upon the house. The mortality amongst the Chinese was 12.1 while for all nationalities it was 5.88.

"The following is a table of the more fatal diseases during 1906 compared with those of the previous year:

Disease.							Numb	Deaths.	
							1906.		1905.
Dysentery	•••				• • •	•••	31	•••	16
Malaria						• • •	29	•••	8
Phthisis			•••		•••		15		10
Enteric	•••						12		9
Beri-beri		•••		•••			9	•••	8

- "DYSENTERY.—The majority of the deaths from dysentery occurred amongst Tamils.
- "The dysentery which affects the Sikhs and Pathans is usually of the amæbic variety and reacts readily to ipecacuanha unless it has passed into a state of sprue, when the prognosis is generally hopeless.
- "Dysentery amongst Tamils is not amæbic, does not react to ipecacuanha, and as the patients, when discharged from hospital, do not take any precaution with regard to their diet the disease tends to recur until the result is eventually fatal.
- "Malaria.—Three hundred and twenty-four cases of malaria were admitted to the General Hospital during the year, and there were 27 deaths from this disease.
- "In 1905, there were 238 cases with only eight deaths—i.e., a case mortality of 3.31 per cent. as compared with 8.33 per cent. for 1906.
- "The increase in the number of cases admitted is, in part, due to malaria occurring amongst coolies employed in opening up new estates; there has been, moreover, an undoubted increase in the amount of malaria throughout the Kuala Lumpur district.
  - "The 324 cases occurring during the past year were of the following types:

Malignant tertian	245	•••	 •••	• • •	with 25 deaths.
Benign tertian	55	•••	 		,, 2 ,,
Qaurtan	11		 		., 0 .,

"ENTERIC.—The following table shows the gradual increase in the number of enteric cases admitted to the General Hospital during the last four years:

Year.					No	. of cas	es.	Deaths.
1903	,	 •••		 	,,,	6	•••	2
1904		 •••		 		14		4
1905		 	* * *	 		38		9
1906		 		 		49		12

"Undiagnosed Fevers.—There were 122 cases of undiagnosed fevers treated in the hospital during the year. This number is probably made up of patients suffering from dengue, influenza, enteric malaria and unclassified fevers.

## "FEMALE WARD.

" Five hundred and sixty-eight patients were treated in the Female Ward during the year:

Daily average	1906	 	 		 	31.9
,,	1905	 	 •••	•••	 	23.7
,,	1904	 	 		 	18.6

The percentage of deaths to the total number treated was 11.09. In 1905 it was 9.24.

- "This increase is chiefly due to the deaths from dysentery amongst female estate coolies. The increase in the number of patients treated in this ward was principally due to the admission of estate coolies during 1906: 294 Tamils were treated as compared with 181 in 1905.
- "OPERATIONS.—Four hundred and five operations were carried out under anæsthetic during the year. Of these 68 were major operations with 20 deaths. Three hundred and thirty-seven were minor operations with two deaths. The major operations were:
  - 9 Laparotomy with three deaths;
  - 6 Liver abscess with one death;
  - 6 Removal of tumour of neck;
  - 7 Trephining for injuries of head with four deaths;
  - 4 Hernia with two deaths, one from chloroform anæsthetic and one from shock;
  - 13 Major amputations with three deaths;
  - 23 Various.

Total ... 68

#### "OUT-PATIENTS.

Treated at Dispensary			 			11,883
Treated at Surgical Ward		•••	 • • •			3,048
Treated at Police Ward	•••	• • •	 • • •			7,366
				Total	•••	22,297

## "LUNATIC ASYLUM.

"The number of patients treated during the year was 216 with 42 deaths as compared to 219 with 55 deaths in the previous year. The case mortality was 19.44 per cent. as against 25.11 per cent. in 1905, a considerable improvement. Thirty-eight cases of beri-beri occurred among the lunatics, of these five died in the Asylum and 22 were transferred to the District Hospital for treatment."

A report by Dr. Fletcher, District Surgeon in charge of the Asylum, on an experiment carried out in order to test the effect of a rice diet on the incidence of beri-beri will be published separately.

Dr. Bridges, Surgeon in charge of the District Hospital, Knala Lumpur, the Tai Wah Ward and the Leper Hospital, reports as follows on those institutions:

# "DISTRICT HOSPITAL.

"Having only been in charge of this hospital for the last two months of the year I can only report on the figures put before me. Three thousand eight hundred and sixty-five out-door patients and 5,599 in-door patients were treated during the year. Of the latter 4,088 were Chinese, mostly mining coolies, 1,230 Tamils, 139 Malays, 128 Bengalis and one Javanese. The total number of deaths was 855 or 15.27 of the total treated. Four hundred

and eighty-two patients absconded from hospital during the year, the reason in most cases being for the want of opium. It is not possible to prevent this absconding as the grounds are not railed in and patients cannot be confined to the wards.

- "The prevailing diseases causing admission into hospital were:
- "Beri-beri.—The total treated was 1,075, several of these were recurrent cases and were readmitted as new cases. More than two thirds were mining coolies and half of them were cases of wet beri-beri. There were 214 deaths from beri-beri, which disease was the cause of 25.02 per cent. of the total deaths.
- "Dysentery.—The total treated was 559, of which the larger number were Tamils; estate and town coolies. Judging from two months' observation, only about 10 per cent. of the cases were amæbic dysentery the rest were bacillary dysentery. The bacillary dysentery seemed to improve best on intestinal antiseptic such as carbolic acid, quinine and salol. It is very difficult to treat these cases satisfactorily as the patients, especially Tamils, often leave the ward and go out and bny sweetmeets and gin. There were 244 deaths from this disease—i.e., 28.5 per cent. of total deaths.
- "MALARIAL FEVER.—The total treated was 665, 202 being of malignant type, 135 of benign type and 328 type not diagnosed. As far as I can judge, there are two principal areas of infection in Kuala Lumpur—the Batu Road, between the first and second mile, and the Brickfields Road; Ulu Gombak and Batu Tiga district being other infected areas. There were 55 deaths from this disease—i.e., 6.4 per cent. of total deaths.
- "Phthisis.—There were 151 cases treated, mostly Chinese. In most of these cases the phthisis was too far advanced for any treatment to be of benefit. There were 71 deaths—i.e., 8.3 per cent. of total deaths.
- "ANÆMIA.—There were 150 cases treated. A large number of these were probably ankylostomiasis, as in most, if not in all, the fatal cases ankylostomes were found in fair numbers. There were 26 deaths—i.e., 3.04 per cent. of total deaths.
- "VENEREAL DISEASE.—There were 487 cases treated. This number does not include the complaints due primarily to syphilis. There were 10 deaths.

#### "TAI WAII HOSPITAL.

"There were 164 patients during the year: 45 of these suffering from disease of the nervous system, 86 were suffering from diseases of the eye, four were suffering from bone troubles. Eighteen patients were discharged as being able to work. There were 17 deaths—i.e., 10.36 per cent.—and 14 patients absconded. The sanitary conditions are satisfactory.

#### "LEPER HOSPITAL.

"Two hundred and forty-three lepers were treated during the year. Remained from last year 151, and admitted 92. There were 59 deaths and 27 absconded. At present in hospital 157."

## THE COAST DISTRICTS.

Dr. Watson, Senior District Surgeon, reports as follows on the various hospitals under his charge.

### "KLANG HOSPITAL.

"There has been a great increase in the amount of work done at the hospital as the following figures show:

						In-door.		Mortality excluding deaths			
- wayananan		Year.			Total treated.	Deaths.	Mortality.	within 24 hours of admission.	Out-door,	Total.	
1904 1905	,	• • •	· · ·		1,394 1,785	141 198	10.11	8.10 8.68	3,476 2,522	4,870 4,307	
1906	* * *	•••	• • •	•••	2,875	498	17.32	15.16	2,698	5,573	

<sup>&</sup>quot;The increase was almost entirely in the in-door department, and was due partly to an increase of about 100 per cent. in the estate population and partly to the severity of malaria in certain parts of the district.

"The following table shows the prevalent diseases and their respective mortalities:

Disease.	No. tre	ated.	No. of d	eaths.	Mortality.		
	1905.	1906.	1905.	1906.	1905.	1906.	
Malaria	400	789	47	147	11.08	18.81	
Pneumonia	40	60	14	24	35.00	40.00	
Phthisis	33	48	10	20	30.30	41.06	
Ulcer	261	389	5	4	1.91	1.02	
Diarrhœa	100	$265 \dots$	28	146	28.00	55.09	
Dysentery	74	144	28	71	37.83	49.30	

"Government also provided \$2,000 as a contribution towards an experiment with mosquitoproof cooly lines. A very unhealthy estate was selected as being the most suitable for an experiment of this kind, but little progress has so far to be reported except the deaths from malaria of two contractors who attempted to build the lines. The children in the various lines in this estate are infected to the extent of from 84 to 100 per cent.

### "INFECTIOUS DISEASES.

- "Small-pox was imported on five occasions to separate estates. In two instances a second case developed on the estate, but the measures taken were sufficient in every case to prevent further spread of the disease. Arrangements were made to have all unvaccinated Tamil coolies landing at Port Swettenham vaccinated before being sent to their estates. This adds greatly to the security of the State in the event of any cooly having unrecognised small-pox during the voyage. Three thousand eight hundred and six persons were vaccinated in the district in 1906, a number greater than was vaccinated in the whole State in 1905.
  - "A case of chicken-pox developed on an estate; the source of infection was not discovered.
- "Seven eases of cholera were landed at Port Swettenham from St. John's Quarantine Station, Singapore. Owing to overcrowding there disinfection was imperfect, and five out of six ships which brought up coolies with a clean bill of health developed the disease within 24 hours of their leaving St. John's. The prompt action of the Resident in imposing 48 hours' quarantine on steamers bringing coolies from St. John's saved the State from a serious invasion and disaster.

## "KUALA SELANGOR HOSPITAL.

"The work done is shown below:

				In-de	Out-door.	
	Yea	ar,	91	Total treated.	Mortality.	Total treated.
1904	 ***		 	184	4.62	1,045
1905 1906 -	 	• • •	 	$\begin{array}{c} 281 \\ 467 \end{array}$	5.33 8.77	1,542 1,396

The increase has been mainly due to the increase in the estate population. There has been comparatively little malaria in the district even on the more newly opened estates.

### "JUGRA HOSPITAL.

"The number of patients treated is shown in the following table:

				In-door.		Out-door.			
	Year.		Total treated.	Deaths.	Mortality.	Total treated.	Malaria percentage.		
1904 1905 1906	• • • • • • • • • • • • • • • • • • • •	•••	192 345 381	10 15 24	5.20 4.34 6.29	$1,451 \\ 1,446 \\ 1,280$	19.7 24.7 24.4		

"In November, 1905, an epidemic of dysentery broke out in Kuala Langat district, but nothing was heard of it until the end of January, 1906, when a number of cases were reported at Telok Panglima Garang. I was able to trace the disease to the household of His Highness the Sultan, in which it was epidemic during the Bulan Puasa, and it was possible to trace it even after two months had elapsed to Tanjong Duablas, Sungei Rambai and Telok, through people who had been at His Highness the Sultan's feast on Hari Raya. The epidemic resulted in about 120 cases with 32 deaths, and gradually died out when precautions were taken to

prevent it spreading through the refreshments partaken at the funerals of victims of the disease. The disease was of a virulent type and was fatal in several cases in four days. His Highness the Sultan's household is thought to have been infected by a visitor who brought the disease from Muar in Johore.

# "JERAM HOSPITAL. ...

"During 1906 cases other than beri-beri were admitted if there were empty beds:

					1904.	1905.	1906.
Beri-beri	•••	***			132	129	129
Malaria		• • •		٠ ٠,,,	64		19
Other diseases				•••	100	19	73
Total death-ra	te				10.81	8.10	12.78
Beri-beri, deat	h-rate	• • •			17.42	9.23	16.40
" net	death-rate	e		•••	17.42	9.23	16.40
Out-patients	• • •	• • •	• • •		693	868	720

The hospital is still standing. Groins were erected on the foreshore with the object of preventing the erosion of the land. Fortunately, at all the high tides, the sea was calm. The health of the district was good, and so far the newly opened estates have remained comparatively healthy."

#### DISTRICT HOSPITAL, KAJANG.

During the year, 1,152 patients were treated in this hospital with 60 deaths, including 11 cases which proved fatal within 48 hours of admission. The percentage of deaths to total treated was 5.20.

Dr. Delmege, Surgeon in charge of the Ulu Selangor district, reports as follows on the hospitals under his care:

"The total number of cases treated throughout the district shows an increase from the preceding year:

					196	06.	1905,			
				ļ	In-door.	Out-door.	In-door.	Out-door.		
Kuala Ku	bu	•••	·	• • •	1,883	6,621	1,605	6.205		
Serendah		•••	• • •		864	2,805	1,013	2,279		
Rawang		•••	• • •	• • •	1,070	1,636	1.037	1,680		
Rasa	•••	•••		•••	•••	3,114	• • •	3,258		
			Total	• • •	3,717	14,176	3,655	13,422		
		Grai	nd total		17,8	393	17	,077		

An increase of 716 cases not including repetitions. There is an increased death-rate in all the hospitals of the district except Rawang.

# CE DEATH-RATE.

						1906.	1905.
Kuala Kubu			•••	,	 	 17.95	 14.95
Serendalı	•				 	 13.65	 10.66
Rawang		• • •	• • •		 	 8.88	 10.89

The number of cases in which death occurred within 48 hours of the admission of the patient to hospital is very high:

Kuala Kubu	 		 	117	deaths	within 48 hours.
Serendah	 •••	• • •	 •••	-26	,,	,,
Rawang	 		 	19	**	•••

If these are deducted we get a net mortality—viz.,

Kuala Kubu	 		 	• / •	• • •		11.73
Serendah	 •••	***	 				10.64
Rawang	 	,	 • • •			•	7.10

I am of opinion that there are two important factors in the production of such a high mortality:

- "(i) Delay in sending in sick coolies (this applies especially to small mines) for treatment.
- "(ii) The large number of absconding patients who are frequently brought back by the police to hospital in a dying state.
  - "Table showing number of absconding patients, 1906:

Kuala Kubu	 		 	• • •	 	181
Serendalı	 		 	• • •	 	34
Rawang	 	• • •	 •••		 	50

Taking Kuala Kubu as an example, 22 patients absconded suffering from diarrhea and 36 from malaria, both of which diseases are very liable to recur and prove fatal.

"To refer in more detail to the Kuala Kubu death-rate, the following table shows ease mortality of principal diseases:

		1		1905,					
		Mortality.		Cases.		Mortali		Cases.	
Beri-beri		37.77 per cer	nt	135	•••	23.36 per	cent.	•••	107
Diarrhœa		38.72 ,,	•••	235		34.61	,,	•••	156
Dysentery	•••	50.70 ,,		71		58.53	,,	•••	41
Phthisis		62.85 ,,		35	• • •	72.22	,,		36

- "EPIDEMICS.—During the month of April an outbreak of plague arose at Rasa, five suspected cases were admitted to the District Hospital, Kuala Kubu; but of these five in only two cases was the diagnosis confirmed by the Institute: one of these recovered.
- "Several isolated cases of measles and chicken-pox occurred in the district, and one case of small-pox, which recovered."

#### VETERINARY BRANCH.

- Mr. Symonds, Acting Veterinary Surgeon, reports as follows on the work done by the Veterinary Department during the year:
- "Mr. T. A. Ford went on long leave on the 16th July, Mr. S. L. Symonds being appointed Acting Veterinary Surgeon from that date.
- "No widespread epidemic occurred amongst animals, although a number of outbreaks of infective disease were dealt with.
- "RINDERPEST.—A supposed outbreak of rinderpest was investigated at Ulu Langat during January, otherwise the State has been free from this disease.
- "GLANDERS.—Three cases of this disease were dealt with by Mr. Ford during January and February and one case during March. Before destroying these horses they were tested with mallein, the diagnosis being subsequently confirmed by post-mortem examination.
- "SWINE FEVER.—A small outbreak of swine fever occurred at Rasa during September, eight pigs died. The contacts were slaughtered and the pig-stye burnt, and no subsequent cases occurred. The origin of this outbreak could not be traced, but as a number of pigs were being brought by train from Malacca it was surmised that the disease was introduced by some of these.
- "FOOT-AND-MOUTH DISEASE.—Small outbreaks of this disease occurred at different centres during the year, 47 cases in all. During February four bullocks were found in Kuala Lumpur, having arrived from Malacca by road. In March four cases occurred at Batang Kali. During May six cases were landed at Port Swettenham. During October, November and December 24 cases occurred at Beranang, Semenyili and Kajang. During November six cases were discovered in Kuala Lumpur, one death occurred.
- "Trypanosomiasis (Surra).—Four horses and seven cattle were found in the Klang district suffering from trypanosomiasis during the period September to December, and one case in a bullock in Kuala Lumpur during November.
- "Horses.—The first case was discovered in an Australian mare at Sungei Rengam, on the 1st September. A notification was gazetted prohibiting the movement of horses and cattle out of the greater part of the Klang district. The Veterinary Police were stationed at Batu Tiga, Puchong and Klang, and a systematic examination of all horses and cattle in the area was made. A census of horses and cattle in the enclosed area showed a return of 94 horses and 671 cattle. The second, third and fourth equine cases occurred in the vicinity of Simpang Lima, Klang, the two former cases being found during September and the latter case during December. All these horses had been in the district for over one year. The equine cases were diagnosed clinically, the diagnosis being subsequently confirmed by microscopical examination. Although blood films were taken from the majority of horses in the area, no infected animals were found which did not show clinical signs of the disease.

- "CATTLE.—As the first equine case had been isolated from other horses for some considerable time, it was suspected that cattle might be the carrier of the disease. Blood films were taken from suspected cattle on numerous occasions, but proved negative. At the suggestion of, and in conjunction with, the Director of the Institute of Medical Research the following experiments were conducted:
- "During September a Siam bullock and an Indian bullock were examined at Batu Tiga. Blood films from them were negative. A rabbit and a guinea pig were inoculated with a small quantity of blood drawn from them. Both these inoculated animals developed trypanosomiasis after a short period of incubation. Shortly afterwards both these bullocks died, one whilst under observation at the Institute of Medical Research. Subsequently 22 cattle in various districts were tested by animal inoculation, and six more proved to be infected.
- "In the Klang district three bullocks out of eight reacted, at Port Swettenham Quarantine Station two bullocks out of four reacted, whilst in Kuala Lumpur one bullock out of three reacted; at Rawang one, at Kuala Kubu one, and at Kajang five bullocks were tested with negative results. Those tested at Port Swettenham Quarantine Station had just arrived from Kedah and showed no clinical signs of the disease. It would appear that a large number of cattle are harbouring the parasites.
- "So far as is known at present, it is impossible to diagnose the disease clinically, with any degree of certainty, in cattle; nor in the majority of cases would microscopical examination of blood appear to be a practical diagnosis in these animals. A bullock known to be infected was kept under observation at the Institute of Medical Research for over one month. Blood films taken from this animal and carefully examined once and sometimes twice daily, revealed the parasites in the peripheral blood for one day only. They were then fairly numerous.
- "No epidemic occurred. The number of deaths recorded in the Klang District, exclusive of those destroyed, was horses one, cattle seven, during the period September to December.
  - "This disease is being further investigated at the Institute of Medical Research.
- "Blood Examinations for Surra.—The bloods of the majority of the horses and ponies imported into the State (excepting racehorses) were examined microscopically with negative results. Besides these, upwards of 200 blood examinations of horses and cattle in various districts were made during the latter four months of the year.
- "The Veterinary Police.—This Force, formed at the beginning of the year and consisting of one V.P. sergeant, one V.P. corporal, and 10 V.P. constables, has been invaluable in aiding the Veterinary Department in dealing with outbreaks of disease. They have been stationed at different centres during the year, and when not used in connection with outbreaks of disease, have been employed in inspecting cattle sheds, stables, etc., reporting any sickness amongst stock, and in carrying out the provisions of the Cruelty to Animals Enactment. Whenever possible they have been shown cases of infective disease and the symptoms explained to them.
- "Three hundred and fifty-six persons were prosecuted by these police during the year, for cruelity to animals, breaches of the quarantine regulations, etc. Three hundred and six convictions were obtained, the fines amounting to \$2,091.50.
- "SLAUGHTER HOUSE.—Thirty two surprise visits were paid to the slaughter house during the year.
- "Dairies and Cattle Sheds.—These were found generally to be well kept, and necessary alterations were made by the owners without a prosecution being necessary.
- "VISITS TO OUT-STATIONS.—One hundred and three visits were paid to out-stations in connection with outbreaks of disease, reports of same, the veterinary police, etc.
- "Deaths amongst Stock Reported in Kuala Lumpur.—Ninety-five bullocks, 13 buffaloes and 29 horses were recorded as having died in Kuala Lumpur during the year.
- "Imports of Animals at Port Swettenham.—The following table shows the number of animals imported at Port Swettenham. In addition, stock are brought overland from other States of which no accurate record is available.

Animals.						1905.		1906.
Cattle	• • •	,	• • •	 		2,629		3,544
Horses		£			•••	354	• • •	291
Sheep		•••		 		3,994		5,202
Pigs	•••	•••		 		19,258		3,716

The great failing off in the number of pigs imported through Port Swettenham is due to the fact that the majority are now brought overland by train from Malacca.

"Of the total number of animals imported 2,405 were quarantined. At times the accommodation at the Quarantine Station was severely taxed and in the event of an outbreak of rinderpest, isolation sheds would be indispensable.

"The Veterinary Inspector at Port Swettenham, Mr. Wijayaratna, worked well."

#### EXAMINATION OF PETROLEUM.

Testing of petroleum at Port Swettenham was carried out under the supervision of Senior District Surgeon, Dr. Watson. The total quantity imported was 1,239,355 gallons of which 20,075 gallons was described as dangerous petroleum. Twenty-two samples were tested during the year.

#### REVENUE.

The amount collected by the department for hospital fees, etc., was \$20,029.36, as against \$15,700.26 during the year 1905.

#### GENERAL.

Most of the hospitals in the State, more especially the General Hospital, Kuala Lumpur, and the District Hospitals at Klang and Kuala Selangor, were much overcrowded during the year.

It has been extremely difficult for the staff of the department to cope with the rapid increase in admission which occurred during the later part of the year.

Assistant Surgeons and Apothecaries are urgently needed, but are very difficult to obtain. There are at present three vacancies for these officers.

Another Surgeon is required for the District Hospital, Kuala Lumpur, in which there are about 400 patients besides some 150 in the Tai Wah Ward, and 140 in the Leper Asylum, a total of nearly 700 patients, all under the care of one Surgeon.

It will be readily understood that under these circumstances it is quite impossible for adequate supervision to be carried out.

In the Coast district another Surgeon has been badly wanted throughout the year.

E. A. O. TRAVERS, State Surgeon, Selangor,

